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# CHILDHOOD HISTORY OF ABUSE AND CHILD ABUSE POTENTIAL IN ADOLESCENT MOTHERS: A LONGITUDINAL STUDY

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## ABSTRACT

**Objectives:** The purpose of this research was to determine whether adolescent mothers of newborns are at higher risk for child abuse than adult mothers of newborns and to examine whether adolescent mothers with memories of child maltreatment have a higher risk for child abuse.

**Method:** Two groups (adolescents and adults) of pregnant mothers were followed for 20 months beginning between the 5th and the 7th month of pregnancy until the child was 18 months old. Adolescent ( $N = 24$ ) and adult ( $N = 24$ ) mothers were matched on sociodemographic variables. During pregnancy, memories of child maltreatment were evaluated. When child was 1, 6, 12, and 18 months old, risk for child abuse was evaluated.

**Results:** Adolescent and adult mothers showed no differences in memories of childhood physical or emotional abuse. Nevertheless, adolescent mothers showed higher child abuse potential and depression scores than adult mothers. Mothers with memories of severe physical punishment showed higher child abuse potential scores and mothers with memories of physical punishment producing physical damage showed higher child abuse potential and depression scores. A statistically significant age of the mother by physical punishment producing physical damage interaction was found for depression.

**Conclusions:** The results of this longitudinal study indicated that the potential for abuse was significantly greater in adolescent mothers than in adult mothers, and in mothers who had been victims of physical abuse than in those who had not. It also appeared that, among adolescent mothers, those who had been victims of childhood physical abuse constitute a higher risk group for child physical abuse. © 2000 Elsevier Science Ltd.

*Key Words*—Child abuse potential, Adolescent mothers, Childhood history of abuse.

## INTRODUCTION

DURING THE LAST 20 years, investigators have explored different risk factors for child abuse and neglect. A childhood history of abuse, low income, social isolation, and single parenthood have been shown to be important variables for the prediction of child abuse (Altemeier et al., 1979; Browne & Saqi, 1988; Caliso & Milner, 1992; Lynch & Roberts, 1977; Olds, Henderson, Chamberlin, & Tatelbaum, 1986; Sack, Mason, & Higgins, 1985). Further, age of the mother is frequently used as a risk factor in preventive programs (Lealman, Haigh, Phillips, Stone, & Ord-Smith, 1985; Olds et al., 1986; Wolfe, Edwards, Manion, & Koverola, 1988).

There is a general consensus in the literature that a conflict between development tasks of adolescence and tasks required of a mother may be relevant to the quality of parenting (Haskett, Johnson, & Miller, 1994). Thus, an adolescent mother who bears and raises a child must attempt to deal simultaneously with the development tasks of adolescence, pregnancy, motherhood and, sometimes, marriage. A developmental view of these adolescent pregnancies suggests that the

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mother is confronted with a larger number of roles, the absence of a firm personal identity, unresolved parental dependency problems, and the sorts of social stress associated with these. As a consequence of the pregnancy, adolescent mothers may be affected by economic deprivation, unemployment, inadequate housing, chaotic lifestyle and parental mental illness (Conger, McCarty, Yang, Lahey, & Burgess, 1984; Miller, 1984). From this point of view, for a group of low-income children "abuse and neglect may be explained, at least in part, as a delayed and as an indirect consequence of the low-income teenager deviation from the normal adolescent life script" (Zuravin, 1988, p. 101).

However, a literature review shows mixed findings about the relationship between adolescent motherhood and child abuse and neglect. Some studies have suggested that children of teenage mothers are more likely to be victims of abuse or neglect than children of older mothers. Bolton, Laner, and Kane (1980) observed that 36.5% of the maternal perpetrators in a large sample of maltreatment cases were found to have had at least one of their children during their adolescence. Bolton and Laner (1986) made a similar analysis of a sample of child maltreatment incidents and concluded that mothers who were adolescents at the birth of at least one of their children were over-represented. Herrenkohl and Herrenkohl (1979) conducted a case record study of 328 maltreating families. Maternal age of less than 20 at the birth of the maltreated child was found to be predictor of recidivism for both physical abuse and neglect. Creighton (1985) analyzed 5000 cases of child maltreatment reported to Child Protection Services between 1977 and 1982. Motherhood prior to 20 years of age was significantly over-represented among families reported for both abuse (35.3%) and neglect (30%).

In contrast to these previous results, other studies have found no relationship between adolescent motherhood and child maltreatment. For example, Hunter, Kilstrom, Kraybill, and Loda (1978) did not found a significant relationship between adolescence or lack of experience in child care and reported child abuse and neglect during the first year of life for children admitted to a newborn intensive care unit. Altemeier, O'Connor, Vietze, Sandler, and Sherrod (1984) in a prospective study found a significant relationship between single motherhood and further child abuse. However, a relationship between mother's age and child abuse reports during the first year of life was not found. Newberger, Hampton, Marx, and White (1986) observed that mother's age at the time of child abuse diagnosis did not significantly discriminate between cases and controls. Massot (1993) observed that amongst all parents reported for maltreatment ( $N = 23,764$ ) and all parents with children in out-of-home care ( $N = 8,535$ ), adolescent parents were not over-represented.

In order to avoid the confounding of other variables with adolescent parenthood, it is important to control for other sociodemographic variables. If groups of adult and adolescent mothers are not matched on sociodemographic variables (income, education, family size, mobility and stress), any perceived difference between groups might be reflective of social and economical differences rather than maternal age. For example, Klerman (1993) showed that once poverty and/or education were controlled, the age differences were markedly reduced, and when teenagers receive adequate prenatal care, education, and support, their outcomes were similar to those of older women. Buchholz and Korn-Bursztyn (1993) showed that adolescent mothers were not uniformly at greater risk for child abuse, and when they were found to be at greater risk, socioeconomic status was found to be a significant factor. However, Zuravin (1988) reported different results, observing that when sociodemographic stress variables were controlled, the relationship between teenage birth and neglect disappeared and the relationship with abuse was significantly reduced, but remained significant.

Childhood history of maltreatment is usually considered a relevant risk factor for child abuse in the next generation (Milner & Dopke, 1997). However, the evidence for this association has been the subject of controversy (Belsky, 1993; Caliso & Milner, 1994; Kaufman & Zigler, 1987), and currently the relevance of this variable for the explanation of child abuse should be considered with caution. Moreover, there are some findings suggesting the hypothesis that a history of physical

abuse could be a risk factor for adolescent pregnancy (Becker-Lausen & Riskel, 1995). However, data from Becker-Lausen (1992) indicated that child abuse history alone did not correlate with reports of adolescent pregnancy. Only mothers with a history of child abuse and dissociative symptoms showed higher levels of adolescent pregnancy.

Few researchers have compared adolescents who were reported as physically abusive or neglectful with non-maltreating adolescents. Zuravin and DiBlasio (1996) found that physically abusive adolescent mothers, compared to nonmaltreating adolescent mothers, were more likely to have had a mother with emotional problems, were less likely to have been positively attached to their caretaker, were more likely to have lived with a family that received welfare support and were more likely to have preferred being alone when they were children. Neglectful adolescents were also more likely to have been sexually abused as children, more likely to have a low birth weight child, more likely to have had their first child at an early age, and were more depressed after birth (Zuravin & DiBlasio, 1992).

Recently, researchers have evaluated child abuse potential in adolescent mothers, looking for predictive variables of higher potential for abuse in this specific group. In a sample of adolescent mothers, Haskett and colleagues (1994) observed that 46.9% of the mothers scored above the Abuse Scale cut-off of the Child Abuse Potential Inventory (Milner, 1986). But, they found no evidence that adolescents with high risk for abuse had less social support or a history of physical abuse. Similar results were found by Miller, Handel, Gilner, and Cross (1991) who reported no differences in Abuse Scale scores of the CAP Inventory for Black adolescents reporting a history of physical abuse and those with no history. Both findings are inconsistent with the intergenerational transmission hypothesis of abuse. However, more research is needed in order to avoid methodological problems. The absence of a comparison sample of adult mothers matched on relevant sociodemographic variables in the Haskett and colleagues (1994) study make it difficult to achieve conclusions. Moreover, the majority of mothers of both studies were African-American and hypothesis for samples with different cultural backgrounds need to be tested.

It is important to advance the study of the relationship between adolescent motherhood and child maltreatment by avoiding methodological problems (retrospective studies, mixed typologies of child maltreatment, non-matched groups for sociodemographic variables). But the most important issue is to understand that focusing on the question of whether adolescent parents are more likely than adults to abuse their children may be too simplistic. It is more relevant to know about the specific conditions that might place adolescent parents at greater risk of abusing or neglecting their children.

The present study investigated the relationship between adolescent motherhood and risk for physical child abuse using a longitudinal design. The main objective of this research was to determine whether adolescent mothers have a higher risk for child abuse than adult mothers. The second purpose was to examine whether adolescent mothers with memories of child physical abuse and/or memories of childhood emotional withdrawal, have a higher risk for child physical abuse than adolescent mothers without memories of child physical abuse and/or memories of childhood emotional withdrawal and than adult mothers with and without such characteristics.

It was predicted that adolescent mothers, as a group, would be at greater risk for physical child abuse than adult mothers and that mothers with a childhood history of physical abuse and mothers with a childhood history of emotional withdrawal would be at greater risk for child physical abuse than mothers without a childhood history of physical abuse and emotional withdrawal. It was also predicted that an interaction between age (adolescent vs. adult) and childhood physical abuse (physically abused as a child vs. non-physically abused as a child) would be found for child abuse risk: adolescent mothers with memories of childhood physical abuse were expected to have a significant higher risk for physical abuse than other groups of mothers. Finally, it was predicted that an interaction between age (adolescent vs. adult) and childhood history of emotional withdrawal (history vs. non-history of emotional withdrawal) would be found for child abuse risk: adolescent

**Table 1. Sociodemographics Characteristics of Participants**

Characteristics	Group	
	Adolescents	Adults
Place of Residence (%)		
Urban	95.8	100.0
Rural	4.2	0.0
Marital Status (%)		
Married	70.8	100.0
Divorced	8.3	0.0
Single	20.8	0.0
Family Income (%)		
Level 1	16.7	0.0
Level 2	29.2	16.7
Level 3	37.5	54.2
Level 4	12.5	25.0
Level 5	4.2	4.2
Mother Education (%)		
Primary school	12.5	12.5
Secondary school	62.5	48.4
Professional training	25.0	35.0
University	0.0	12.5
Children (Number)		
Mean	1.0	1.2
SD	0.2	0.4
Age of the Mother (Years)		
Mean	18.7	27.8
SD	1.1	3.9
Age of the Father (Years)		
Mean	22.3	30.3
SD	2.9	3.6

mothers with memories of childhood emotional withdrawal were expected to have a significant higher risk for physical abuse than other groups of mothers.

## METHOD

### *Participants*

The sample consisted of 48 mothers (24 adolescents and 24 adults) from the Basque Country (Spain) who participated in a longitudinal evaluation beginning during the 5th to 7th month of pregnancy and finishing when the child was 18 months old. Table 1 presents the sociodemographic characteristics of both groups. Adolescent mothers ( $N = 24$ ) and adult mothers ( $N = 24$ ) were statistically matched ( $p > .05$ ) on place of residence (rural or urban), family income, mother's education, and number of children. Both groups presented statistically significant differences ( $p < .05$ ) in marital status. Mothers 20 years old or less by the predicted childbirth date were included in the adolescent group. Mothers with 21 years old or more on the predicted childbirth date were included in the adult group.

### *Participant Selection*

An initial sample of 95 mothers (37 adolescents and 58 adults) agreed to participate in this study when they were pregnant. Only 57 mothers (24 adolescents and 33 adults) completed the five evaluations of this longitudinal study. In some cases, it was not possible to find participants at the right time because they had moved. In other cases, participants refused to continue with evalua-

tions. Nine participants from the adult mother group were eliminated in the sociodemographic matching process.

### *Test Instruments*

*Child Abuse Potential Inventory (CAP)* (Milner, 1986). The CAP was used to assess child abuse potential. The CAP Inventory is a 160 item, self-administered questionnaire that is answered in a forced choice, agree/disagree format. A Spanish version of the Inventory, which was used in the present study, was recently validated (de Paúl, Arruabarrena, Múgica, & Milner, 1999) with adequate levels of internal consistency, predictive and factorial validity. The 73-item Abuse scale of the Spanish Version consists of five scales: distress, rigidity, unhappiness, problems with the family and problems with the child. Factors from the Spanish Abuse Scale are very similar to factors from the original version. The CAP Inventory also contains three response distortion indexes: the faking-good index, the faking-bad index and the random response index. The CAP Abuse Scale has adequate internal consistency and temporal stability (Milner, 1986). Internal consistency for the Abuse Scale range .92 to .96 for the original version and .95 for the Spanish version. A cut-off score was developed for the original and for the Spanish version. For the original version, a 215 weighted score produce the best correct classification rates for physically abusers and control groups. For the Spanish version, a 33 non-weighted score produces a similar correct classification of respondents. Abuse Scale classification rates are generally in the mid-80% to low-90% range for the original version (Milner, 1986) and close to 85% for the Spanish version (de Paúl et al., 1999). It means that elevated abuse scores can be considered as predictive of later reported and confirmed physical child abuse (Milner, Gold, & Wimberley, 1986). For this research, mothers scoring higher than 32 on the Abuse Scale were considered as high-risk for child physical abuse.

*Beck Depression Inventory (BDI)* (Beck & Beamesderfer, 1974; Beck, Rush, Shaw, & Emery, 1983; Beck, Ward, Mendelson, Mecz, & Erbangli, 1961). The BDI was used to evaluate the presence and severity of depressive symptoms. The BDI consists of 21 items presenting four increasingly severe symptoms, scored from 0 to 3. The BDI has demonstrated adequate internal consistency, test-retest reliability, construct validity and factorial validity. A Spanish version of BDI, which has showed adequate psychometric characteristics (Conde & Esteban, 1976; Conde, Esteban, & Useros, 1976; Ruiz & Bermudez, 1989), was used for the present research.

*The Maternal History Interview (MHI)* (Altemeier et al., 1984). The MHI was used to evaluate memories of childhood physical abuse and memories of childhood emotional withdrawal. The interview consists of 15 open-ended questions that ask about childhood memories. The interview is frequently used during pregnancy for predictive purposes of child maltreatment (Altemeier, O'Connor, Sherrod, & Tucker, 1986; Altemeier, O'Connor, Tucker, Sherrod, & Vietze, 1985). Six items of the interview ask about frequency of physical punishment during childhood, presence of injuries considered as consequences of physical abuse, and memories of parental physical abuse because of their emotional venting. Nine items ask about memories of parental emotional withdrawal and about separation from family and out-of-home care during infancy. A Spanish version of the MHI was previously applied to a Spanish sample composed of 400 participants from the general population. Factor analysis of the Spanish version showed that items were organized into two predicted dimensions: emotional withdrawal (nine items) and physical punishment (six items). Answers could be scored in a weighted manner with negative scores for categories including physical abuse, injuries, and emotional withdrawal. For the purpose of the present research, individual analyses of answers to items were conducted, selecting (1) mothers reporting childhood memories of severe physical punishment (SPP), (2) mothers reporting childhood memories of

**Table 2. Rates Severe Physical Punishment (SPP), Physical Damage (PD) and Emotional Withdrawal (EW) for Adult and Adolescent Mothers**

Characteristics	Group	
	Adult Mothers	Adolescent Mothers
Severe Physical Punishment (SPP) (%)	50.0	54.2
Severe Physical Punishment with Physical Damage (PD)	26.1	25.0
Emotional Withdrawal	29.2	25.0

severe physical punishment with physical damage (PD), and (3) mothers reporting childhood memories of parental emotional withdrawal (EW).

### *Procedure*

From October 1994 to April 1995, all adolescent pregnant women (20 years old or younger at the predicted childbirth date) arriving for consultation to a Health Care Center of Bizkaia (Spain) were asked to participate in a longitudinal study. In the same center and during the same period of time, a randomly selected subset of adult pregnant mothers (21 years old or older for the predicted childbirth date) received the same offer to participate in the study. Because the participation in the study was voluntary, some adult and adolescent mothers refused to collaborate in the initial evaluation and follow-up evaluations. Ninety-five mothers (37 adolescent and 58 adult) agreed to participate in the study and further follow-up. From 5th to the 7th month of pregnancy mothers were individually interviewed. During the interview, responses to the MHI and a basic set of sociodemographic questions were obtained. When children were 1, 6, 12, and 18 months old, mothers were recontacted and asked to complete the CAP Inventory and the BDI.

## RESULTS

First, results from the MHI about physical punishment, physical damage, and emotional withdrawal were analyzed and subgroups of mothers were created. Twenty three mothers (47.9% of the total sample) had memories of severe physical punishment as children (SPP group). Twelve mothers (25.5% of the total sample) had memories of severe physical punishment with physical damage (PD group). Thirteen mothers (27.1% of the total sample) had memories of emotional withdrawal during their infancy (EW group). Some mothers from group PD were also members of SPP group and some mothers of EW group were also members of SPP or PD groups.

It was hypothesized that adolescent mothers, compared to adult mothers, would present more frequently a history of childhood physical abuse and childhood emotional withdrawal. The hypothesis was not confirmed. As Table 2 shows, no differences were found on rates of severe physical punishment,  $\chi^2(1, N = 48) = .083, p = .773$ , severe physical punishment producing physical damage,  $\chi^2(1, N = 48) = .007, p = .932$ , and memories of parental emotional withdrawal  $\chi^2(1, N = 48) = .105, p = .745$ , for both groups of mothers (adolescents and adults).

Because of the similar conceptual content of both dependent variables, an overall multivariate analysis of variance (MANOVA) was used to test the main effects and interactions of age group (adolescent vs. adult), childhood memories of severe physical punishment (abused vs. non-abused) and childhood memories of emotional withdrawal (withdrawal vs. non-withdrawal) on child abuse potential and depressive symptomatology scores. When the MANOVA was significant ( $p < .05$ ), hypotheses were tested using two three factor repeated measures ANOVAs, with repeated measures on the last factor: age of the mother (adolescent vs. adults), childhood memories of severe physical



punishment (abused vs. non-abused) and childhood memories of emotional withdrawal (withdrawal vs. non-withdrawal), and time of the evaluation (1st month, 6th month, 12th month, 18th month) to examine child abuse potential and depression. A Student-Newman-Kuels (SNK) test was used as post-hoc analysis of significant differences for time of evaluation. The MANOVA was significant, Wilks's lambda = .56,  $F(7,34) = 3.84$ ,  $p = .004$ , therefore follow-up univariate analysis of variance were conducted for CAP Abuse and BDI scores.

A main effect for time of evaluation was found in Abuse Scale scores,  $F(3,38) = 2.99$ ;  $p = .04$ . SNK analysis indicated that total sample mean scores for the third evaluation (12 months) were significantly lower than for previous evaluations (first and sixth months).

It was hypothesized that adolescent mothers compared to adult mothers, mothers with memories of severe physical punishment (SPP) compared with mothers without memories of severe physical punishment (NoSPP), and mothers with memories of parental emotional withdrawal (EW) compared with mothers without memories of parental emotional withdrawal (NoEW), would present higher scores on the Abuse Scale of the CAP Inventory during the four evaluations (1st, 6th, 12th, and 18th month). Univariate ANOVA indicated that there were main effects for age of the mother group,  $F(1,40) = 16.8$ ,  $p = .001$ , and for memories of SPP group,  $F(1,40) = 6.1$ ,  $p = .02$ , for Abuse Scale scores. Adolescent mothers ( $M = 24.5$ ;  $SD = 10.6$ ) presented significantly higher Abuse Scale scores than adult mothers ( $M = 12.9$ ;  $SD = 5.9$ ). Mothers with memories of SPP ( $M = 22.2$ ,  $SD = 12.2$ ) presented significantly higher Abuse Scale scores than mothers without memories of SPP ( $M = 15.3$ ,  $SD = 6.2$ ). No main effect,  $F(1,40) = .926$ ,  $p = .34$ , for memories of EW was found. No interaction was found for childhood memories of SPP by age of the mother,  $F(1,40) = 1.308$ ,  $p = .26$ , and memories of EW by age of the mother,  $F(1,40) = 2.110$ ,  $p = .15$ , for Abuse Scale scores.

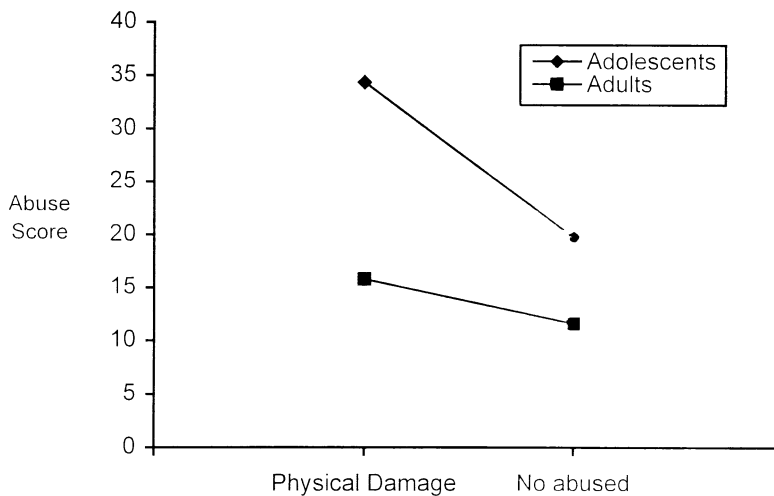
It was also hypothesized that adolescent mothers compared to adult mothers, mothers with memories of SPP compared with mothers without memories of SPP, and mothers with memories of EW compared with mothers without memories of EW, would present higher BDI scores during the four evaluations (1st, 6th, 12th, 18th months).

A main effect for time of evaluation was found for depression scores,  $F(2,39) = 3.56$ ;  $p = .04$ . Univariate ANOVA indicated that total sample mean BDI scores for the third evaluation (12 months) and fourth evaluation (18 months) were significantly lower than for previous evaluations (1st and 6th months).

Univariate ANOVA indicated that there was main effect for age group,  $F(1,40) = 7.9$ ,  $p = .008$ , on BDI scores. Adolescent mothers ( $M = 6.9$ ;  $SD = 6.7$ ) had significantly higher BDI scores than adult mothers ( $M = 3.6$ ;  $SD = 3.4$ ) in the four evaluations (1st, 6th, 12th, and 18th months). No main effects for memories of physical punishment,  $F(1,40) = 2.9$ ,  $p = .09$ , and for emotional withdrawal,  $F(1,40) = .63$ ,  $p = .43$ , were found. Moreover, no interaction between memories of childhood physical punishment by age of the mother group,  $F(1,40) = 2.7$ ,  $p = .10$ , and between emotional withdrawal by age of the mother group,  $F(1,40) = 1.7$ ,  $p = .20$ , were found.

An overall MANOVA was used to test the main effects and interactions between age of the mother group (adolescent vs. adult) and memories of physical punishment with physical damage (PD) for CAP Abuse Scale and BDI scores. The MANOVA was significant, Wilks's lambda = .589,  $F(7,33) = 3.287$ ,  $p = .009$ , therefore follow-up univariate analysis of variance were conducted for CAP Abuse and BDI scores.

It was hypothesized that adolescent mothers compared to adult mothers, and mothers with memories of physical damage (PD) compared with mothers without memories of physical damage (PD), would earn higher Abuse scores. The univariate ANOVA indicated that there were main effects for age of the mother group,  $F(1,39) = 19.7$ ,  $p < .001$ , and for the PD memories group,  $F(1,39) = 9.8$ ,  $p = .003$ , in Abuse scores. A statistical trend toward an age of the mother group by PD memories group interaction effect,  $F(1,39) = 3.1$ ,  $p = .08$ , on Abuse Scale scores was found. Mothers with PD memories ( $M = 25.3$ ,  $SD = 12.8$ ) presented a significantly higher Abuse



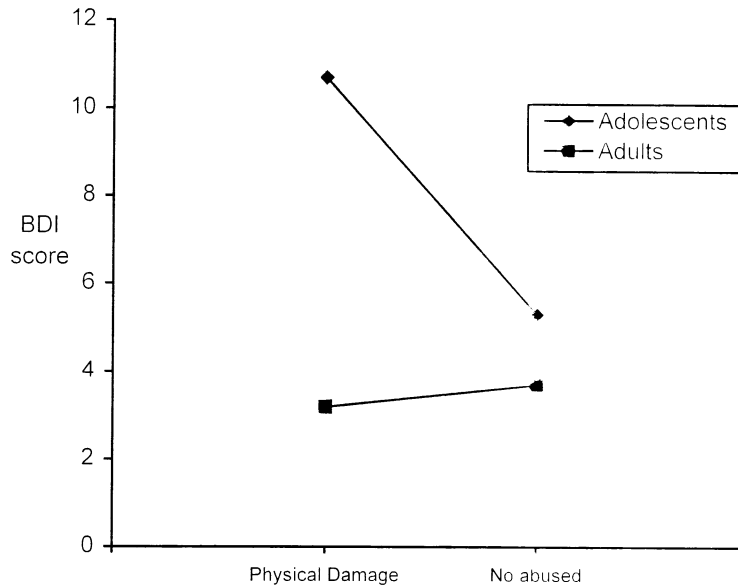
**Figure 1.** Abuse score by age group and physical punishment with physical damage (PD).

Scale scores than mothers without PD memories ( $M = 15.7$ ,  $SD = 7.1$ ). As Figure 1 shows, adolescent mothers with PD memories ( $M = 34.8$ ,  $SD = 11.3$ ) showed higher Abuse Scale scores than adolescent mothers without PD memories ( $M = 19.8$ ,  $SD = 9.7$ ). Abuse Scale scores were not significantly different for adult mothers with ( $M = 15.8$ ,  $SD = 8.7$ ) and without ( $M = 11.6$ ,  $SD = 7.6$ ) PD memories.

It was also hypothesized that adolescent mothers compared to adult mothers, and mothers with memories of physical damage (PD) compared to mothers without memories of physical damage (PD), would earn higher BDI scores. The analysis indicated that there was a significant main effect for age group,  $F(1,39) = 10.9$ ,  $p = .002$ , on BDI scores. A statistical trend toward a main effect for PD memories groups,  $F(1,39) = 3.3$ ,  $p = .07$  on BDI scores was found. Mothers with PD memories ( $M = 6.9$ ,  $SD = 5.5$ ) presented higher BDI scores than mothers without PD memories ( $M = 4.5$ ,  $SD = 4.3$ ). A statistically significant age of the mother by PD memories group interaction effect,  $F(1,39) = 4.8$ ,  $p = .03$ , on BDI scores was found. As Figure 2 shows, adolescent mothers with PD memories ( $M = 10.7$ ,  $SD = 5.7$ ) earned significantly higher BDI scores than adolescent mothers without PD memories ( $M = 5.3$ ,  $SD = 4.4$ ). BDI scores were not significantly different for adult mothers with ( $M = 3.2$ ,  $SD = 2.6$ ) and without ( $M = 3.8$ ,  $SD = 2.9$ ) PD memories.

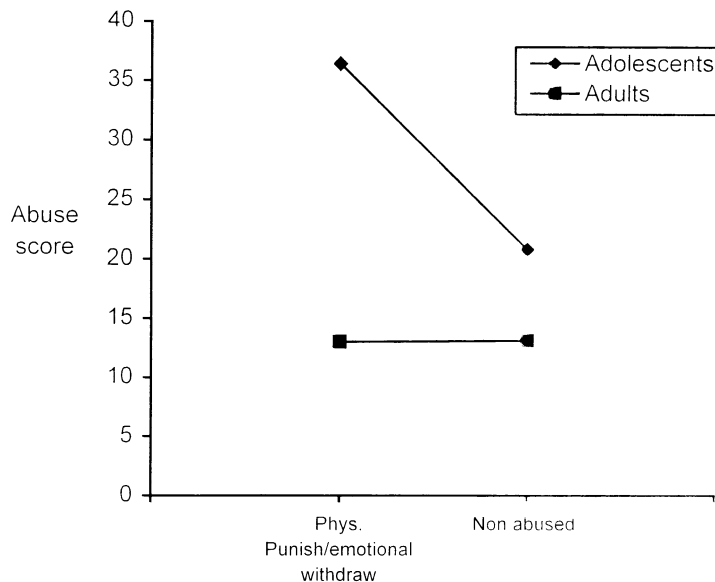
An exploratory analysis was conducted using a small number of mothers ( $N = 7$ ) who had memories of Severe Physical Punishment and Emotional Withdrawal. A MANOVA was used to test the main effects and interactions of age of the mother (adolescent vs adult) and memories of physical punishment with emotional withdrawal groups (SPP-EW) on CAP Abuse Scale and BDI scores. The MANOVA was significant, Wilks's lambda = .600,  $F(7,38) = 3.618$ ,  $p = .004$ , therefore follow-up univariate ANOVA were conducted for both CAP Abuse and BDI scores. The univariate ANOVA indicated that there were main effects for SPP-EW memories,  $F(1,44) = 4.9$ ,  $p = .03$ . Mothers with SPP-EW memories ( $M = 24.7$ ,  $SD = 10.3$ ) earned higher Abuse Scale scores than mothers without SPP-EW memories ( $M = 16.9$ ,  $SD = 8.7$ ). A significant age of the mother by SPP-EW memories group interaction,  $F(1,44) = 5.0$ ,  $p = .03$ , was found. As Figure 3 shows, adolescent mothers with SPP-EW memories ( $M = 36.4$ ,  $SD = 11.2$ ) earned a significantly higher Abuse Scale scores than adolescent mothers without SPP-EW memories ( $M = 20.8$ ,  $SD = 10.5$ ). Abuse Scale scores were not significantly different for adult mothers with ( $M = 13.0$ ,  $SD = 8.9$ ) and without ( $M = 13.1$ ,  $SD = 9.2$ ) SPP-EW memories.



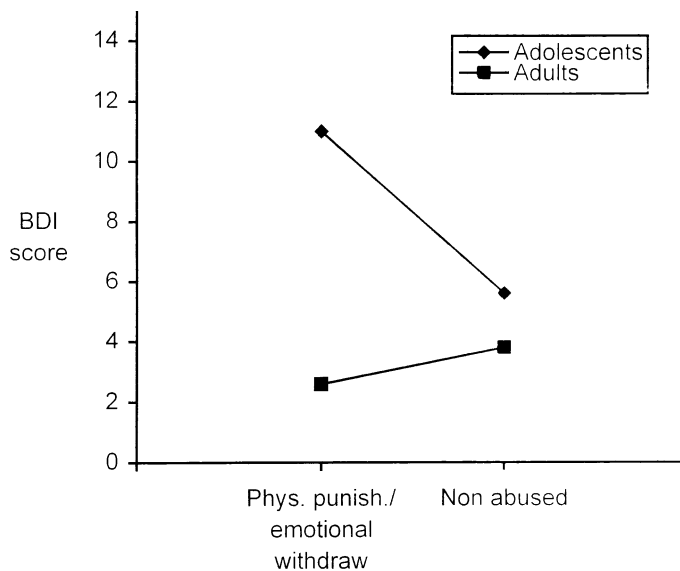


**Figure 2.** BDI score by age group and physical punishment with physical damage (PD).

The univariate ANOVA also indicated that no main effect,  $F(1,44) = 1.9, p = .17$ , for SPP-EW memories group was found for BDI scores. A statistically significant age of the mother by SPP-EW memories group interaction,  $F(1,44) = 4.8, p = .03$ , was found. As Figure 4 shows, adolescent mothers with SPP-EW memories ( $M = 11.0, SD = 5.8$ ) earned significantly higher BDI scores than adolescent mothers without SPP-EW memories ( $M = 5.6, SD = 4.9$ ). BDI scores were not



**Figure 3.** Abuse score by age group and physical punishment/emotional withdrawal (SPPEW).



**Figure 4. BDI score by age group and physical punishment/emotional withdrawal (SPPEW).**

significantly different for adult mothers with ( $M = 2.6$ ,  $SD = 3.5$ ) and without ( $M = 3.8$ ,  $SD = 3.2$ ) SPP-EW memories.

## DISCUSSION

The results of this study did not support the hypothesis that adolescent mothers have a more frequent history of child physical abuse than demographically matched adult mothers. The sample of adolescent mothers did not exhibit a higher percentage of memories of severe physical punishment, nor of physical damage caused by physical punishment, nor of memories of emotional withdrawal by their families. The results, however, are consistent with Becker-Lausen (1995) who reported that physical or emotional child abuse history alone is not sufficient to predict risk for adolescent pregnancy and supports the idea that the relationship of child physical abuse history to teen pregnancy could be mediated by other variables.

The results of this study confirmed the hypothesis that adolescent mothers constitute a high-risk group for child abuse than adult mothers. Throughout the four evaluations undertaken up to the first 18 months of the child's life, adolescent mothers showed significantly higher scores than adult mothers on the CAP Inventory Abuse Scale and on the BDI. The research supports the results from Haskett and colleagues (1994) showing that adolescent mothers are at risk for child abuse during the perinatal period. Moreover, data from our study showed that adolescent mothers continue to be at risk for child abuse during an extended period of time (6, 12, and 18 months after delivery). However, results are not consistent with Altemeier and colleagues (1984), who did not find a relationship between adolescent motherhood and child abuse reports using a longitudinal approach. However, Altemeier and colleagues used a different evaluation of risk. Results of the present study were obtained from scores in the CAP Inventory Abuse Scale and not from child abuse reports. Mothers with a high potential for physical child abuse will not necessarily maltreat their children; however, high risk for child physical abuse can be predicted based on predictive and discriminant capacity of the questionnaire.

The hypothesis predicting that mothers with a childhood history of abuse could be at a higher

risk for physical abuse was only partially confirmed. Mothers with memories of having undergone severe corporal punishment with physical damage were the only ones who showed higher Abuse scores than the other childhood history groups. On both the CAP Inventory Abuse Scale and the BDI, mothers with memories of having suffered emotional withdrawal did not constitute a higher risk for physical abuse than those without such memories. Only when memories of emotional withdrawal were accompanied by memories of severe physical punishment did we find a higher Abuse score. Results are consistent with previous studies (Caliso & Milner, 1992), which showed that memories of childhood physical abuse are more frequent in individuals with a higher potential for child abuse. However, it is important to note that only mothers with memories of severe physical punishment with physical damage had a high-risk for physical abuse. Results support previous findings (de Paúl, Milner, & Múgica, 1995) showing that physical punishment without physical damage is not a predictive factor of child abuse potential.

On the other hand, the hypothesis that the interaction between adolescent motherhood and a history of child abuse would increase the risk for abuse was only partially confirmed. No interactive effect was observed between adolescent motherhood and memories of severe physical punishment as regards the risk for child abuse. Further, no interactive effect between adolescent motherhood and memories of emotional withdrawal during childhood on Abuse Scale was found. Nevertheless, results did indicate the existence of an interactive effect between adolescent motherhood and memories of having undergone physical punishment with physical damage on the risk for physical abuse. These results are not consistent with Miller and colleagues (1991) and Haskett and colleagues (1994) who used primarily African-American participants and reported no differences in CAP Inventory Abuse Scale scores for adolescents reporting memories of child physical abuse. For this European Caucasian mother's sample, memories of severe physical punishment with physical damage significantly increased the potential for physical abuse only for adolescent mothers and not for adult mothers.

In summary, results indicated that abuse potential was significantly greater in adolescent mothers than in adult mothers, and in mothers who were victims of physical abuse than in those who were not. It also appears that, among adolescent mothers, those who have themselves been victims of physical abuse constitute a higher risk group for the development of physical child abuse during the first 18 months following the birth of the child. However, for adult mothers the presence of memories of corporal punishment or physical abuse had no relation to child abuse potential.

For a correct interpretation of these results, it is important to take into account some limitations of the present research. First, it is impossible to know if the same results would have been found if every mother who received the offer to participate would have agreed to collaborate or, if every pregnant mother who agreed to participate before delivery would have completed every assessment until 18 months after childbirth. However, this is a common limitation for longitudinal studies, which usually show high rates of drop-outs. Second, it is important to note that the results of this study were obtained from scores on the CAP Inventory Abuse Scale and not from reported or substantiated cases of child physical abuse. It means that mothers with high potential for physical abuse will not necessarily be abusive mothers. However, child physical abuse can be predicted based on discriminant capacity of CAP Inventory. Last, history of child maltreatment was assessed based on retrospective memories of child physical abuse and emotional withdrawal. It is impossible to know if mothers reporting memories of child maltreatment were really abused and viceversa. Results could be different if the history of child maltreatment would be based on substantiated reports. Further research is needed to confirm results of this study with other samples and using other methods for the evaluation of child abuse memories and child abuse potential.

Nevertheless, results of this study may be useful in designing secondary prevention programs. Adolescent mothers exhibiting memories of having been victims of physical abuse accompanied by emotional withdrawal appear to constitute a group in specific need of the resources allotted to child abuse prevention. Focusing the attention of secondary prevention programs of child abuse on this sub-group of mothers may contribute towards improving the efficiency of these programs.

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## RÉSUMÉ

**Objectifs:** Le but de cette recherche a été de déterminer si des mères adolescentes d'enfants nouveaux-nés présentent plus de risques de devenir maltraitantes que des mères adultes d'enfants nouveaux-nés et d'examiner si des mères adolescents ayant des souvenirs de mauvais traitements subis dans leur enfance présentent plus de risques d'exercer des sévices envers un enfant.

**Méthode:** Deux groupes (adolescentes et adultes) de mères enceintes ont été suivies pendant 20 mois depuis le cinquième et le septième mois de leur grossesse jusqu'à ce que leur enfant atteigne l'âge de 18 mois. Les mères adolescentes ( $N = 24$ ) et les mères adultes ( $N = 24$ ) ont été appariées selon des variables socio-démographiques. Durant la grossesse, les souvenirs de mauvais traitements ont été évalués. Lorsque l'enfant a atteint 1, 6, 12, et 18 mois on a évalué le risque de mauvais traitements.

**Résultats:** Les mères adolescentes et les mères adultes n'ont pas montré de différence en ce qui concerne les souvenirs de mauvais traitements physiques ou psychologiques. Pourtant, les mères adolescentes ont montré un potentiel maltraitant et un score concernant la dépression plus élevés que les mères adultes. Les Mères ayant des souvenirs de châtiments physiques sévères ont présenté des scores plus élevés pour le potentiel de maltraitance et les mères ayant des souvenirs de mauvais traitements leur ayant causé des dommages corporels ont obtenu des scores plus élevés concernant le potentiel et la réalisation de mauvais traitements. Concernant la dépression, une interaction statistiquement significative a été trouvée entre l'âge de la mère et les châtiments ayant entraîné des dommages corporels.

**Conclusion:** Les résultats de cette étude longitudinale ont montré que le potentiel de maltraitance est significativement plus élevé chez les mères adolescentes que chez les mères adultes ainsi que chez les mères qui ont subi des mauvais traitements physiques par rapport à celles qui n'en ont pas subi. Il est également apparu que parmi les mères adolescentes, celles qui ont été victimes de sévices physiques dans leur enfance constituent un groupe à risque plus élevé de maltraiter physiquement leur enfant.

## RESUMEN

**Objetivos:** El objetivo de esta investigación fue el determinar si las madres adolescente con hijos recién nacidos se encuentran en una situación de más alto-riesgo para el maltrato infantil que las madres adultas y analizar si las madres adolescentes con recuerdos de maltrato infantil tienen un mayor riesgo de maltrato infantil.

**Método:** Se llevó a cabo un seguimiento de dos grupos (adultas y adolescentes) de madres embarazadas durante 20 meses, empezando entre el quinto y séptimo mes de embarazo y finalizando cuando el niño/a tuvo 18 meses. Los grupos de madres adolescentes ( $N = 24$ ) y de madres adultas ( $N = 24$ ) fueron emparejadas en todas las variables sociodemográficas. Durante el embarazo se evaluaron los recuerdos de maltrato infantil en todos los sujetos. Cuando el niño/a cumplió 1, 6, 12 y 18 meses se evaluó la situación de riesgo para el maltrato infantil en todas las madres.

**Resultados:** Las madres adolescentes y las madres adultas no presentaron diferencias en los recuerdos de haber sufrido maltrato físico o emocional en su infancia. Sin embargo, las madres adolescentes mostraron un mayor potencial de maltrato y puntuaciones más altas en sintomatología depresiva que las madres adultas. Las madres con recuerdos de haber sufrido castigos físicos severos mostraron un mayor potencial de maltrato infantil y las madres con recuerdos de maltrato físico infantil mostraron mayor potencial de maltrato y puntuaciones más altas en depresión. Se observó un efecto interactivo de las variables edad de la madre y maltrato físico en la puntuación en depresión.

**Conclusiones:** Los resultados de este estudio longitudinal indicaron que el potencial de maltrato infantil es más elevado en las madres adolescentes que en las madres adultas y más elevado en las madres que han sido víctimas de maltrato físico que en las que no lo han sido. Asimismo, se aprecia que, entre las madres adolescentes, aquellas que han sido víctimas de maltrato infantil constituyen el grupo de mayor riesgo para el maltrato infantil.